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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,014	03/11/2004	Michel Brun	CELA:115	3915
27890 7590 04/14/2008 STEPTOE & JOHNSON LLP 1330 CONNECTICUT AVENUE, N.W. WASHINGTON, DC 20036			EXAMINER TRAN, BINH Q	
			ART UNIT 3748	PAPER NUMBER
			MAIL DATE 04/14/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/797,014

**Applicant(s)**

BRUN ET AL.

**Examiner**

BINH Q. TRAN

**Art Unit**

3748

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 3, 4 and 6-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 4 and 6-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

This office action is in response to the amendment filed January 03, 2008.

#### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

***Claims 1, 3-4, and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heath (Patent Number 5,941,069) in view of Browne (Patent Number 2,518,660).***

Regarding claims 1, 3, and 9, Heath discloses an exhaust system (10) comprising: an exhaust channel for emitting exhaust gases (12), and a dilution and dispersion device (e.g. 14, 24) affixed to an end of said channel (12), comprising: a hub (28), a ring (16) attached to and encircling said hub, and a plurality of blades (30) attached to said ring, said blades for dispersing exhaust gases, wherein the dilution and dispersion device is fixed to the channel so that any exhaust gas emitted from said channel must pass through said dilution and dispersion device, thereby diluting and dispersing exhaust gases exiting the channel (e.g. See col. 3, lines 30-67; col. 4, lines 1-67). However, Heath fails to disclose that the hub comprising at least one hole for passing exhaust.

Browne teaches a dilution and dispersion device (e.g. 22, 22') for the exhaust gases of a vehicle's engine, that incorporates blades (e.g. 26, 30, 220) and a hub (e.g. 24'), wherein a hub

incorporates at least one hole (234) for passing exhaust (e.g. See Figs. 10-11; col. 12, lines 19-67).

It would have been recognized by one of ordinary skill in the art at the time the invention was made, that applying the known technique of using hub comprising at least one hole for passing exhaust through as taught by Browne to the exhaust purifying system of Heath, would have yielded predictable results and resulted in an improved system for increasing the flow rate of the exhaust gas of an internal combustion engine, to further improve the performance of the engine and the efficiency of the emission system. In addition, the Heath and Browne references are known work in one of field of endeavor, and such modification is merely the use of known technique to improve a similar device by using hub comprising at least one hole for passing exhaust through, and such modification, i.e. choosing from a finite number of predictable solutions, is not of innovation but of ordinary skill and common sense. (See KSR International Co. v. Teleflex Inc., 550 U.S.--, 82 USPQ2d 1385 (April 30, 2007)).

Regarding claim 4, Heath further discloses wherein said hub comprises a profiled element for deflecting gases towards said blades (e.g. See col. 3, lines 30-67; col. 4, lines 1-67).

Regarding claim 6, Heath further discloses wherein said ring rotatable with respect to said hub (e.g. See col. 3, lines 30-67; col. 4, lines 1-67).

Regarding claim 7, Heath further discloses wherein said ring is integral with said hub (e.g. See col. 3, lines 30-67; col. 4, lines 1-67).

Regarding claim 8, Heath further discloses wherein the device is non- motorized (e.g. See col. 3, lines 30-67; col. 4, lines 1-67).

***Response to Arguments***

Applicant's arguments filed January 03, 2008 have been fully considered but they are not completely persuasive. Claims 1, 3-4, and 6-9 are pending.

Applicant's cooperation in explaining the claims subject matter more specific to overcome the claim rejection is appreciated.

Applicants' s arguments with respect to claims 1, 3-4, and 6-9 have been considered but are moot in view of the new ground(s) of rejection as discussed above.

Applicant's amendment (Claims 1, 3-4, and 6-9) necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL See MPEP, 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for response to this final action is set to expire THREE MONTHS from the date of this action. In the event a first response is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for response expire later than SIX MONTHS from the date of this final action.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Binh Tran whose telephone number is (571) 272-4865. The examiner can normally be reached on Monday-Friday from 8:00 a.m. to 4:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reach on (571) 272-4859. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular communications and for After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/BINH Q. TRAN/

Binh Q. Tran  
Primary Examiner, Art Unit 3748  
April 09, 2008